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AA 5083

Category Aluminum Alloy

Class Wrought

Composition

Element **Weight %**

Al 94.7

Mn 0.7

Mg 4.4

Cr 0.15

Mechanical Properties

Properties		Conditions	
		T (°C)	Treatment
Density ($\times 1000 \text{ kg/m}^3$)	2.66	25	
Poisson's Ratio	0.33	25	
Elastic Modulus (GPa)	70-80	25	
Tensile Strength (Mpa)	305		
Yield Strength (Mpa)	195	25	H112 more
Elongation (%)			
Reduction in Area (%)			
Shear Strength (MPa)	170	25	O
Fatigue Strength (MPa)	160	25	H321

Thermal Properties

Properties	Conditions	
	T (°C)	Treatment

Thermal Expansion ($10^{-6}/^{\circ}\text{C}$)	23.4	20-100	
Thermal Conductivity (W/m-K)	120	25	All

Electric Properties

Properties	Conditions		
	T ($^{\circ}\text{C}$)	Treatment	
Electric Resistivity (10^{-9}W-m)	60	25	All

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